

# Tiffen® PHOTAR

## COATED AND NON-COATED FILTERS



### ADD LIFE AND ZEST TO YOUR PICTURES!

TIFFEN PHOTAR FILTERS highlight sky and cloud scenes, dramatize special effects, extreme close-ups. All simply and easily done with any camera.

TIFFEN PHOTAR COATED FILTERS are hard flouride vacuum coated to increase light transmission usually lost by reflection. Prevents glare, ghost images and halation. A natural companion for your coated camera lens.

- ALL BLACK and WHITE filters are supplied in SOLID OPTICAL GLASS, ground and polished plane parallel.
- ALL COLOR CORRECTION filters are made by incorporating special filter dyes in a thermo plastic cement which forms a permanent bond. Heat or Cold will not effect filter.
- Colors checked scientifically for exact light transmission.
- Each filter is permanently mounted in a SHOCK-PROOF protective dural ring to prevent chipping of edges.
- All filters are engraved with size and color.
- Packaged in a custom-made transparent, dustproof, plastic protective case with complete instructions for use enclosed.

### BLACK AND WHITE FILMS

- YELLOW 1** (EQUAL TO WRATTEN K1) For use with all Ortho and Panchromatic films. Will darken a blue sky and by contrast bring out the white clouds and foreground objects. Greater degrees of a darkened sky can be obtained by using the YELLOW 2 and yet greater, by using the Orange filter. The Yellow 1 filter is extremely useful when short exposures are required with some degree of contrast.
- YELLOW 2** (EQUAL TO WRATTEN K2) For use with all Ortho and Panchromatic films. A greater contrast between blue sky and white sky than the YELLOW 1 filter. Most popular outdoor filter when taking beach scenes, landscapes, sunsets, snow scenes, mountain views, and when photographing architecture.
- RED 1** (EQUAL TO WRATTEN A25) For extremely contrasty effects in clouds and skies, with pan film slight under-exposure will produce moonlight effect when exposed in bright sunlight with sun substituting for moon. For use with Infra-Red film. Will penetrate fog, haze, and heavy mist. Will exaggerate sky tones to provide spectacular effects.
- GREEN 1** (EQUAL TO WRATTEN X1) For use with Panchromatic films only. Gives greater definition to clouds and improves flesh tones when taking outdoor portraits against the sky. Will also give a more natural rendition and greater detail when photographing landscapes, garden and flower scenes.
- ORANGE** (EQUAL TO WRATTEN G15) For use with ortho films for extreme contrasts, absorbs most of ultra-violet blue rays, used in marine photography to darken sky. Cuts thru haze for aerial use. Ideal for copying old prints and documents to produce a clear black and white reproduction.
- PORTRAIT +1, +2, +3** Can be used with all Color and Black & White films. Inexpensive auxiliary lenses for use in front of your movie or still camera lens permitting titling with your movie camera, portraits, copying, tabletops, etc. Complete tables of distances and instructions for use enclosed with each filter.
- NEUTRAL DENSITY X2, X4** Can be used with all Color and Black & White films. Reduces the amount of light passing thru the lens when taking pictures in brilliant sunlight, to avoid overexposures.
- CENTERING LENS** For quick, easy centering of subject to camera lens for copying and titling.

### FOR KODACHROME AND EKTACHROME FILMS

- HAZE (1)** (EQUAL TO WRATTEN 1 CLEAR) A Colorless filter for use with aerial or landscape scenes, cuts thru the blue atmospheric haze not visible to the naked eye. Absorbs most of the Ultra Violet rays and eliminates the bluish tint in aerial color photography. No change of exposure required.
- SKYLIGHT (1-A)** (EQUAL TO SKYLIGHT 1A) For use outdoors with Kodachrome, Ektachrome and Kodachrome Daylight Type Films. Reduces bluish haze in distant scenes, open shade and overcast days, sunlit snow scenes, mountain and aerial photography. No change of exposure required.
- HAZE U. V. (#2A)** (EQUAL TO WRATTEN 2A) Reduces atmospheric haze, gives effect of warmer tones than that of Haze #1 filter. For correction of photo-flash illumination with Type B Kodachrome film.
- TYPE A (85)** (EQUAL TO WRATTEN 85) This filter permits the use of Indoor Type A Kodachrome film outdoors without any increase in exposure. Since this filter reduces haze no haze filter is needed for distant landscapes. No change of exposure required.
- 85-B** (EQUAL TO WRATTEN 85-B) Corrects any 3200 Kelvin, Kodachrome Professional Type B Ansco Color films for use in daylight. No change of exposure required.
- BLUE 80 PHOTOFLOOD** (EQUAL TO WRATTEN 80) This blue filter permits the use of regular Daylight Type Kodachrome film indoors with photoflood lighting.
- ULTRA-VIOLET 81** (EQUAL TO WRATTEN 81) For use with Ektachrome film, permits exposing Ektachrome Type B (Tungsten) film with photofloods, corrects light source temperature to Mazda 3200° Kelvin.
- ULTRA-VIOLET 81-A** (EQUAL TO WRATTEN 81-A) For use with Ektachrome film, filter prevents bluish tint in color transparencies exposed on overcast days, in distant views, high altitude aerial exposures and in the shade. Warmer color tones are the result of using 81-A filter.
- ULTRA-VIOLET 81-B** (EQUAL TO WRATTEN 81-B) For use with Ektachrome film, results same as 81-A filter listed above. When much warmer color values are desired 81-B filter is used.
- 81-C** (EQUAL TO WRATTEN 81-C) For use with G. E. Flashbulbs No. 5, 6, 11, 22, 31, 50, when exposing Kodachrome Type A film.
- 81-D** (EQUAL TO WRATTEN 81-D) For use with Sylvania Flashbulbs No. 0, 2, 2a, 3, 25, 26, 40, when exposing Kodachrome Type A film.
- 81-EF** (EQUAL TO WRATTEN 81-EF) For use with G. E. Flashbulbs No. 5, 6, 11, 22, 31, 50; also Sylvania Flashbulbs No. 0, 2, 2A, 3, 25, 26, 40 when exposing Ektachrome Type B films.
- 1-D FLASH** (1D FLASH) For use with Sylvania Flashbulbs No. 0, 2, 2a, 3, 25, 26, 40, when exposing Kodachrome and Ektachrome Daylight type films INDOOR ONLY OR IN DEEP SHADE WHEN DAYLIGHT IS NOT MAIN SOURCE OF LIGHT.
- 2-D FLASH** (2D FLASH) For use with G. E. Flashbulbs No. 5, 6, 11, 22, 31, 50, when exposing Kodachrome and Ektachrome Daylight type films INDOOR ONLY OR IN DEEP SHADE WHEN DAYLIGHT IS NOT MAIN SOURCE OF LIGHT.

### FOR ANSCO COLOR FILM

- CONVERSION (#10)** (EQUAL TO ANSCO #10) For use with Ansco Daylight Type Color film when exposed in tungsten lighting. Fine color reproduction when used with Mazda 3200° Kelvin light source.
- CONVERSION (#11)** (EQUAL TO ANSCO #11) For use with Ansco Tungsten Type film, corrects and adjusts color balance so that film may be used outdoors.
- CONVERSION (#12)** (EQUAL TO ANSCO #12) For use with Tungsten Type Ansco Color film when using high speed discharge gas lamps such as Strobe Units.
- ULTRA-VIOLET (UV15)** (EQUAL TO UV15) For use with Ansco-Color film to reduce atmospheric haze. Used as a corrective filter when exposing Ansco-Color Tungsten Film with photo-flood lights.
- ULTRA-VIOLET (UV16)** (EQUAL TO UV16) For use with Ansco-Color film. For normal haze correction, use with Ansco-Color Tungsten film with photoflash bulbs as a light source. For use with high voltage strobe tubes 6700 to 7000 K to reduce the excess blue when using daylight films.
- ULTRA-VIOLET (UV17)** (EQUAL TO UV17) For use with Ansco-Color film. Gives greater haze correction than UV16. Best for distant landscapes, aerial color views, mountain scenes and in shaded areas.

### DAYLIGHT FLASH (2B)

For use with Ansco Color or Kodachrome Daylight Color films using Sylvania Flashbulbs No. 0, 2, 2a, 3, 25, 26, 40, with a 2X (one stop) filter factor. Excellent for indoor or outdoor color photography. Takes the place of two filters, the Conversion filter (for indoor flash) and a Correction filter for improving flash pictures. Completely eliminated the need for special blue bulbs or dipping of clear bulbs. It may also be used outdoors in late afternoons and evenings and around sunrise.

**GUARANTEE:** All Tiffen "PHOTAR" color correction filters are unconditionally guaranteed for life against separation and color fading.



## Tiffen "PHOTAR" FILTER FACTOR CHART

The following "PHOTAR" filter factors are for general use. All filter factors given are approximate as sensitized film may vary slightly from time to time.

FILM	FILTER	FACTORS Daylight Tungsten	
<b>ANSCO</b> Plenachrome, Triple S Ortho	Yellow 1	2	1.5
	Yellow 2	3	2
	Orange	6	3
	Green 1	4	3
Super Pan Press, Isopan, Supreme, Triple S Pan, Super Pan Portrait, Ultra Speed Pan, Hypan, Twin Eight Hypan	Yellow 1	1.5	1.5
	Yellow 2	2	1.5
	Orange	3	2
	Green 1	4	3
	Red 1	10	6
<b>KODAK</b> Verichrome, Ortho X, Super Ortho X, Super Ortho Press	Yellow 1	2	1.5
	Yellow 2	2.5	2
	Orange	5	3
Plus X, Super X, Super XX Panatomic X, Portrait Pan	Yellow 1	1.5	1.5
	Yellow 2	2	1.5
	Orange	3	2
	Green 1	4	3
	Red 1	8	4
Cine Kodak 8 Panchromatic, Cine Kodak 8 Super X, Cine Kodak Super X, Cine Kodak Super XX, Tri-X Panchromatic	Yellow 1	1.5	1.5
	Yellow 2	2	1.5
	Orange	2.5	2
	Green 1	4	3
	Red 1	6	3

"HANDY" FILTER CONVERSION CHART												
Filter Factor	If normal f/stop without filter is:											
	2.0	2.5	2.8	3.5	4.5	5.6	6.3	8	11	16	22	
Then here's f/stop with filter. No calculation necessary!												
1.5	1.6	2.0	2.3	2.9	3.7	4.6	5.1	6.6	9.2	13.0	18.5	
2	1.4	1.8	2.0	2.5	3.2	4.0	4.5	5.6	8.0	11.0	16.0	
2.5	—	1.6	1.8	2.2	2.8	3.6	4.0	5.2	7.1	10.1	14.3	
3	—	1.4	1.6	2.0	2.6	3.3	3.6	4.6	6.6	9.2	13.1	
4	—	1.2	1.4	1.7	2.2	2.8	3.2	4.0	5.6	8.0	11.3	
5	—	—	—	1.6	2.0	2.5	2.9	3.6	5.0	7.1	10.1	
6	—	—	—	1.4	1.8	2.3	2.6	3.3	4.5	6.6	9.2	
7	—	—	—	1.3	1.7	2.1	2.4	3.0	4.2	6.1	8.5	
8	—	—	—	—	1.6	2.0	2.2	2.8	4.0	5.6	8.0	
10	—	—	—	—	1.4	1.8	2.0	2.5	3.5	5.0	7.1	

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# Tiffen

Proves It  
Time And  
Again

## THERE'S NO CAMERA MADE THAT WE CANNOT FIT!

With The World's Finest  
FILTERS AND FILTER ACCESSORIES

There isn't a camera made anywhere, from a tiny miniature to a portrait studio job that can't be properly fitted with a Tiffen Photar "Coated" or Non-coated Filter, Lens Shade, Adapter Ring, Retaining Ring, or Step-Up Ring. Tiffen manufactures a complete line of Adapter Ring types (Bayonet, Slip-On, Screw-in, Set-Screw), Lens Shades and Filters for all films, to fit every camera made!

## EXPOSURE GUIDE FOR KODACHROME AND EKTACHROME FILMS

YELLOWISH FILTERS	EXPOSURE INCREASE IN STOPS	YELLOWISH FILTERS	EXPOSURE INCREASE IN STOPS	YELLOWISH FILTERS	EXPOSURE INCREASE IN STOPS
#81	1/3	#81B	1/3	#81D	2/3
#81A	1/3	#81C	1/3	#81E F	2/3

## FILM SPEED CHART

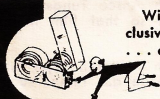
ASA Speeds  
Day-light Tungsten

Anso Supreme, Isopan, Superpan Portrait	50	32
Anso Ultra Speed	100	64
Anso Color (Daylight)	12	—
Anso Color (Daylight) Sheet Film	10	—
Anso Color (Tungsten)	—	12
Anso Color (Tungsten) Sheet Film	—	10
Anso Plenachrome	50	25
Anso Superpan Press	125	80
Anso Hypan, Twin Eight Hypan	40	32
Anso Triple S Pan	200	160
Anso Triple S Ortho	125	64
Defender XF Panchromatic	64	40
Defender XF Orthochromatic	64	20
Defender Arrow Pan	125	80
Defender High Speed Pan	160	125
Kodak Plus X	50	40
Cine Kodak Super X	40	32
Kodak Super XX, Cine Kodak XX	100	80
Kodachrome (Daylight)	10	4*
Kodachrome (Type A)	10**	16
Kodak Verichrome	50	25
Kodacolor (Daylight)	25	—
Kodak Ektachrome (Daylight)	8	—
Kodak Tri X Panchromatic	250	200
Kodak Portrait Panchromatic	50	32
Kodak Panatomic X	32	25
Kodak Ortho X	125	64
Kodak Super Ortho Press	100	50
Kodak Ektachrome (Daylight)	8	—
Kodak Ektachrome (Tungsten)	—	10

\*WITH BLUE #80 FILTER \*\*WITH TYPE A #85 FILTER

## The REVOLUTIONARY NEW Tiffen Select-A FILTER SAFE

- Each Filter Held Securely by Tension Springs
- Filters Kept Apart by Molded Grooves
- Filters Can't Scratch Rub or Rattle
- All Filters Visible, Eliminates Mistakes
- Durable, Transparent Plastic Case



With the amazing exclusive new Button Control... enables you to select instantaneously, with a light press of a button, exactly the filter needed. No digging, no straining.



Molded Strap-Loop permits case to be carried on camera or gadget bag strap. Small enough to be carried in your pocket.



Positive cover locking... opens and shuts securely in a jiffy.

## HOLDS 6 Filters Lens Shade Adapter Ring

Small, Compact, Easy to Carry.

SERIES #5 (3/8"x1 3/4"x2 1/4") \$2.50  
SERIES #6 (4 1/2"x1 3/4"x2 1/2") \$2.75

BE FILTER SAFE... NOT SORRY

At Your Dealer  
Tiffen FILTERS, LENS SHADES, ADAPTER RINGS  
NO CAMERA MADE THAT WE CANNOT FIT!  
FREE—Write for new Tiffen Catalog

Tiffen MANUFACTURING Corporation

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